

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-092853

(43)Date of publication of application : 06.04.1999

(51)Int.Cl.

C22C 33/02

B22F 1/00

C22C 38/00

C22C 38/28

(21)Application number : 09-250600

(71)Applicant : MITSUBISHI HEAVY IND LTD

(22)Date of filing : 16.09.1997

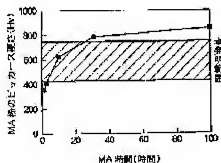
(72)Inventor : MORIMOTO TATSUO
KONDO MASAYUKI

(54) MANUFACTURE OF OXIDE DISPERSED STEEL

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a method of manufacture of an oxide dispersed steel having excellent high temp. creep strength characteristic of an oxide dispersed steel, rich in ductility and toughness, and applicable to a high speed rotor for high temp. use.

SOLUTION: In the method of manufacture of an oxide dispersed steel by means of mechanical alloying, 0.1-2 wt.% of fine Y₂O₃ powder is added to a raw-material powder having a composition consisting of, by weight, 7-18% Cr, 0.1-2% Ti, 0.1-3% of (1/2W+Mo), and the balance Fe with inevitable impurities, carrying out mechanical alloying until the hardness of the resultant powder mixture reaches a value in a prescribed range and/or until no peak of Y₂O₃ of the resultant powder by X-ray diffraction is detected, and then subjecting the resultant powder mixture to solidification and compaction and to



heat treatment.